Restaurants Can't Shake the Salt

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INTRODUCTION

The reduction of sodium in Americans' diets continues to be a missed public health opportunity. The average American consumes about 4,000 mg of sodium per day, but according to the government's 2010 Dietary Guidelines for Americans, adults should consume no more than 2,300 mg of sodium per day.[1] For people with hypertension, adults 51 years and older, and African-Americans, the government recommends an even lower limit of 1,500 mg per day. Those groups account for the majority of adults, according to the Centers for Disease Control and Prevention (CDC).[2] Researchers estimate that reducing current sodium consumption rates by 1,200 mg a day would eliminate 60,000 to 120,000 cases of coronary heart disease and save 44,000 to 92,000 lives per year.[3] Such a shift in sodium consumption is also estimated to reduce medical costs by $10 billion to $24 billion annually.[4]

Federal public health leaders, however, continue to rely on unmonitored and haphazard voluntary measures by the food industry for any progress, while many other nations take the lead by mandating limits or setting targets. For instance, in November 2013, Argentina made sodium reductions mandatory with legislation that set maximum sodium limits for 18 categories of meats, bread products, and soups to be achieved by 2015.[5] South Africa enacted regulations in 2013 that set mandatory sodium reduction targets for bread, cereal, butter and spreads, savory snacks, potato chips, cured processed meats, and sausages.[6] The United Kingdom has relied on voluntary but comprehensive efforts. In 2006, the United Kingdom Food Standards Agency (FSA) published its first set of voluntary salt reduction targets for 85 food categories that provided the majority of salt in the British diet, including processed meats, bread, cheese, and convenience foods and snacks.[7] In 2008, the FSA set lower salt reduction targets to be achieved by 2012. Between 2001 and 2011, average per capita daily salt consumption dropped by 1.4 grams (15 percent).[8] A contributing factor to salt reduction was a voluntary traffic-light food-labeling system, present on more than 75 percent of packaged

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[1] U.S. Department of Health and Human Services, U.S. Department of Agriculture. (2010). "Dietary Guidelines for Americans." http://health.gov/dietaryguidelines/dga2010/dietaryguidelines2010.pdf.

[2] Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention. (12 April, 2013). "Most Americans Consume Too Much Sodium." http://www.cdc.gov/bloodpressure/sodium.htm.

[3] Bibbins-Domingo, K., Chertow, G. M., Coxson, P. G., Moran, A., Lightwood, J. M., Pletcher, M. J., & Goldman, L. (2010). Projected effect of dietary salt reductions on future cardiovascular disease. *New England Journal of Medicine*, 362(7), 590-599.

[4] Ibid.

[5] El Senado y Cámara de Diputados de la Nación Argentina. (2013). Ley 26.905. Infojus: Sistema Argentino de Informacion Juridica. http://derechoalaalimentacion.org/wp-content/uploads/2013/12/ley26905.pdf.

[6] World Health Organization. (2013). *S*uccessful Sodium Regulation in South Africa. http://www.afro.who.int/en/downloads/doc_download/9240-successful-sodium-regulation-in-south-africa.html.

[7] UK Department of Health. (2012). Salt Targets for Responsibility Deal. https://responsibilitydeal.dh.gov.uk/wp-content/uploads/2012/01/Salt-Targets-for-Responsibility-Deal.pdf.

[8] Sadler, K., Nicholson, S., Steer, T., Gill, V., Bates, B., Tipping, S., et al. (2012). National diet and nutrition survey: assessment of dietary sodium in adults (aged 19 to 64 years) in England, 2011. Department of Health.

foods sold in the UK. The FSA has set further reduction targets for 2017.[9]

The failure of the U.S. marketplace approach has been clear and documented. Noting that the previous 40 years of voluntary action did nothing to lower sodium, a 2010 Institute of Medicine (IOM) report called on the Food and Drug Administration (FDA) to reduce sodium by setting mandatory national standards in processed and restaurant foods and to do so gradually.[10] In addition the IOM called on the Secretary of Health and Human Services to convene and lead a nationwide campaign that would involve industry, public health groups, and consumer advocates to support the FDA initiative.[11] Neither has happened, although last summer FDA Commissioner Margaret Hamburg offered a vague commitment of Agency action—only to have her statement clarified by the FDA press office that there is no current timetable for action.[12]

The public health benefits and evidence base for sodium reduction have been well documented in the scientific literature. For instance, in June 2014, a group of more than 30 leading experts from around the world issued a consensus statement under the auspices of the New York Department of Health and Mental Hygiene and the American Heart Association:

> Cardiovascular diseases, including heart disease and stroke, are leading causes of death in the United States. Influencing the major risk factors for cardiovascular disease provides an opportunity to improve Americans' health, which in turn can prevent illness and disability, reduce health disparities, save lives and reduce healthcare costs. Considering the full scope of research, the undersigned affirm the scientific basis for lowering current sodium consumption levels in the U.S. population.[13]

And while recently published studies have raised questions about the degree of reduction that is beneficial, much of that research has suffered from serious shortcomings. For example, two studies in the New England Journal of Medicine in August 2014 claimed that low sodium intake could be dangerous, but their results may have been skewed by reverse causation; it may not have been a low sodium intake that caused subjects' illness, but an illness that caused their low sodium intake. Furthermore, the researchers used a single urine sample to measure long-term sodium intake rather than multiple 24-hour sodium measurements, which are more

[9] Food Standards Agency. (2014). 2017 UK salt reduction targets. FSA in Scotland. http://www.food.gov.uk/scotland/scotnut/salt/saltreduction#.U5tgJPldWIM.

[10] Taylor, C. L., & Henry, J. E. (Eds.). (2010). Strategies to reduce sodium intake in the United States. National Academies Press.

[11] Ibid.

[12] Jalonick, M. C. (17 June, 2014). FDA prepping long-awaited plan to reduce salt. *AP*. http://bigstory.ap.org/article/fda-prepping-long-awaited-plan-reduce-salt.

[13] New York City Department of Health and Mental Hygiene. (2014). Consensus Statement on Sodium. http://www.nyc.gov/html/doh/downloads/pdf/cardio/consensus-statement.pdf.

reliable.[14,15,16,17] In 2013, the IOM released a report on sodium that gained media attention for calling reduction targets into question. Unfortunately, the media largely misrepresented the findings. The IOM in fact found serious methodological flaws in all of the studies suggesting harm from low-sodium intakes, stating that the evidence of harm from low-sodium diets is "insufficient and inconsistent."[18]

Most recently, the CDC re-affirmed that the "totality of evidence" calls for reduction of sodium in the food supply. In a CDC briefing on the release of its Vital Signs on sodium intake by children in September 2014, Janelle Gunn, Acting Policy Team Lead in the Division for Heart Disease and Stroke Prevention, said:

> At CDC, and other government agencies as well, we continue to evaluate the evidence and importantly we consider the totality of the evidence. A vast majority of scientific research confirms that when sodium is reduced, so does blood pressure which are [sic] leading causes of death in the U.S. Hypertension is alarming in the U.S. One in three adults have high blood pressure, and only half of those have it under control. Even among the youth population we find one in six already has raised blood pressure. These are levels higher than we want to see for their age and gender.[19]

Indeed, children today are consuming far too much sodium. Children ages 4 to 8 should consume no more than 1,200 mg of sodium daily, while children ages 9 to 18 should consume no more than 1,500 mg daily. However, the CDC reported in its Vital Signs report that 9 out of 10 U.S. children ages 6 to 18 consume more sodium than recommended, at an average of 3,300 mg daily.[20] About 65 percent of this comes from store-bought foods, 13 percent from fast food and pizza restaurants, and 9 percent from school cafeterias.[21] Importantly, CDC noted, the taste for salt is established by diet early in life.

For the general population in the United States, about 77 percent of sodium comes from processed foods and foods eaten outside the home, including restaurant meals.[22] Food manufacturers and restaurants are determining the sodium content, making its consumption nearly outside the control of consumers. This is of particular concern for low-income and minority communities who frequent fast-food restaurants and are at a higher risk of related chronic illnesses.[23] Increasingly, consumers realize industry is

[14] Mozaffarian, D., Fahimi, S., Singh, G. M., Micha, R., Khatibzadeh, S., Engell, R. E., et al. (2014). Global sodium consumption and death from cardiovascular causes. *New England Journal of Medicine*, 371(7), 624-634.
[15] Liebman, B. F. (2014). Statement on New Studies of Salt and Cardiovascular Disease. Center for Science in the Public Interest. http://cspinet.org/new/201408131.html.
[16] WASH. (12 August, 2014). Salt Reduction Saves Lives [Press Release].
[17] Whelton, P. K., & Appel, L. J. (2014). Sodium and Cardiovascular Disease: What the Data Show. *American journal of hypertension*, 27(9), 1143-1145.
[18] Yaktine, A. L., Oria, M., & Strom, B. L. (Eds.). (2013). Sodium Intake in Populations:: Assessment of Evidence. National Academies Press.

[19] Centers for Disease Control and Prevention. (2014). CDC Telebriefing: New Vital Signs Report What can be done to help children eat less sodium? http://www.cdc.gov/media/releases/2014/t0909-children-sodium.html.
[20] CDC. (2014). Reducing Sodium in Children's Diets. CDC Vital Signs. http://www.cdc.gov/vitalsigns/children-sodium/.
[21] Ibid.
[22] CDC. (2014). Sodium and Food Sources. http://www.cdc.gov/salt/food.htm.
[23] Freeman, A. (2007). Fast food: oppression through poor nutrition. California Law Review, 2221-2259.

making the choice for them. According to a survey conducted by the American Heart Association, 97 percent of Americans do not know or underestimate their sodium intake, and 75 percent want less sodium in processed and restaurant foods.[24] Furthermore, 56 percent of Americans think the government should play a role in reducing sodium levels in foods by setting limits.[25]

In fact, sodium levels have changed little in recent years. According to NHANES data, from 1988-1994 to 2009-2010, average adult sodium intake per day went from 3,427 mg to 3,463 mg.[26] Given the NHANES methodology, that is likely to be an underestimation, and 4,000 mg a day is probably closer to actual intake.

However, industry continues to resist any federal action whether it be mandatory reductions or voluntary targets, claiming their efforts are sufficient. To determine industry progress, we conducted this study of restaurant foods. In 2013, the New York City Department of Health and Mental Hygiene established a database to track the nutrient content of foods served in chain restaurants in the United States. This report analyzes the changes in sodium levels at the 25 most popular chain restaurants between 2012 and 2014 across seven categories of menu items that are leading sources of sodium.

METHODS

All sodium data for this report were collected using MenuStat.org, a free online database maintained by the New York City Department of Health and Mental Hygiene. The database is updated annually with the nutrition content of all menu items for the Nation's Restaurant News' list of the 200 biggest (by dollar sales) chain restaurants.[27] It allows individuals to search by food item, restaurant, food category, and year. This analysis is of the 25 largest restaurants in America.[28] Those restaurants are:

1. McDonald's
2. Subway
3. Starbucks
4. Burger King
5. Wendy's
6. Taco Bell
7. Dunkin' Donuts
8. Pizza Hut
9. KFC
10. Applebee's
11. Chick-Fil-A
12. Sonic
13. Olive Garden
14. Chili's
15. Domino's

[24] American Heart Association. (2014). "75% of Americans want less sodium in processed and restaurants foods." http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyEating/75-of-Americans-Want-Less-Sodium-in-Processed-and-Restaurant-Foods-Infographic_UCM_467291_SubHomePage.jsp.
[25] Ibid.
[26] ARS. (2014). What we eat in America. USDA. http://www.ars.usda.gov/News/docs.htm?docid=13793.
[27] MenuStat. (2014). New York City Department of Health and Mental Hygiene. http://menustat.org/.
[28] Nation's Restaurant News. (2012). U.S. Top 100. http://nrn.com/industry-data/us-top-100.

16. Panera Bread
17. Jack in the Box
18. Arby's
19. Dairy Queen
20. Red Lobster
21. IHOP
22. Denny's
23. Outback Steakhouse
24. Chipotle
25. Papa John's

For each restaurant, we analyzed data from 2012 and 2014 across seven food categories pre-determined by the MenuStat database: Appetizers & Sides, Burgers, Entrees, Fried Potatoes, Pizza, Sandwiches, and Soup.[29] These categories are considered major contributors of sodium to the diet. Menu items were excluded if they did not show sodium content, had ranges for sodium content, or had a "less than" value for sodium content (i.e., "<1,060 mg"). In total, 229 menu items were excluded for these reasons.

Our final data set included 2,850 items in 2012 and 2,925 items in 2014. We divided those items into two subcategories: Kids and Standard. The Kids category included menu items labeled in the MenuStat database with unabridged item names that included "kids menu" or "kids." MenuStat categorized those items as such if they appeared on the kids menu on the company website. Some of those items (and thus some of the items in our dataset) were on both the kids and adult menus (i.e., a hamburger from Burger King). The Standard category included menu items not specifically listed as kids items, as well as those listed as both kids and standard items. In total, our Kids category included 163 items in 2012 and 222 items in 2014. The Standard category included 2,717 items in 2012 and 2,766 items in 2014. Note that the Kids category double-counted 30 items that appeared on both the kids and adult menus in 2012, and 63 items in 2014. However, when we analyzed trends across all menu items, we counted each item only once.

Because restaurants altered menu items between 2012 and 2014 and added a number of additional items, we conducted a second analysis of a subset of our data, consisting of only those food items that were on the menu in both 2012 and 2014. That allowed us to see if the arguably more popular items that were on the menu in both years had any changes in their sodium or calorie levels.

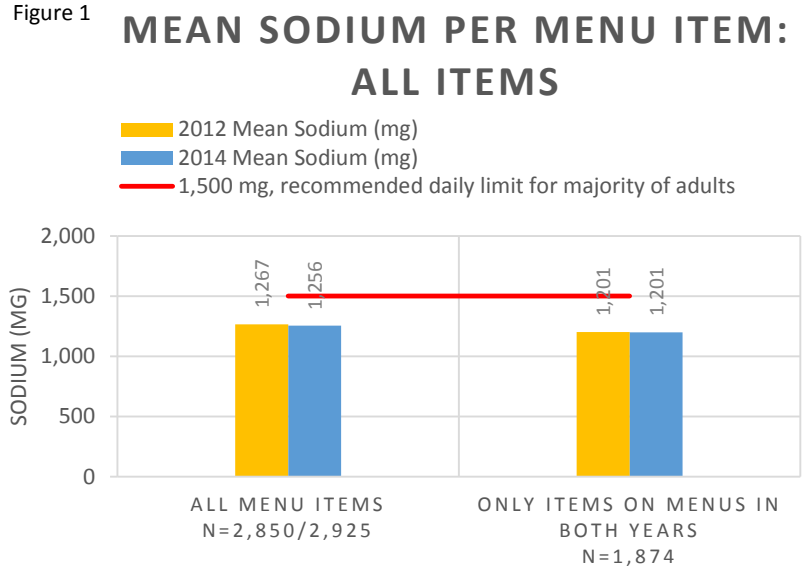
RESULTS

All Menu Items

Between 2012 and 2014, there was almost no reduction in the average sodium content across all menu items analyzed (see Figure 1, Table 1a, Appendix). In 2012, the average sodium level across all 2,850 menu items was 1,267 mg, and by 2014 had barely declined by 1 percent to an average of 1,256 mg across the total of 2,925 items. During this period the average calorie levels for all items remained relatively constant as well, although there was a decrease

[29] CDC. (2012). Where's the Sodium? CDC Vital Signs. http://www.cdc.gov/vitalsigns/sodium/.

Figure 1

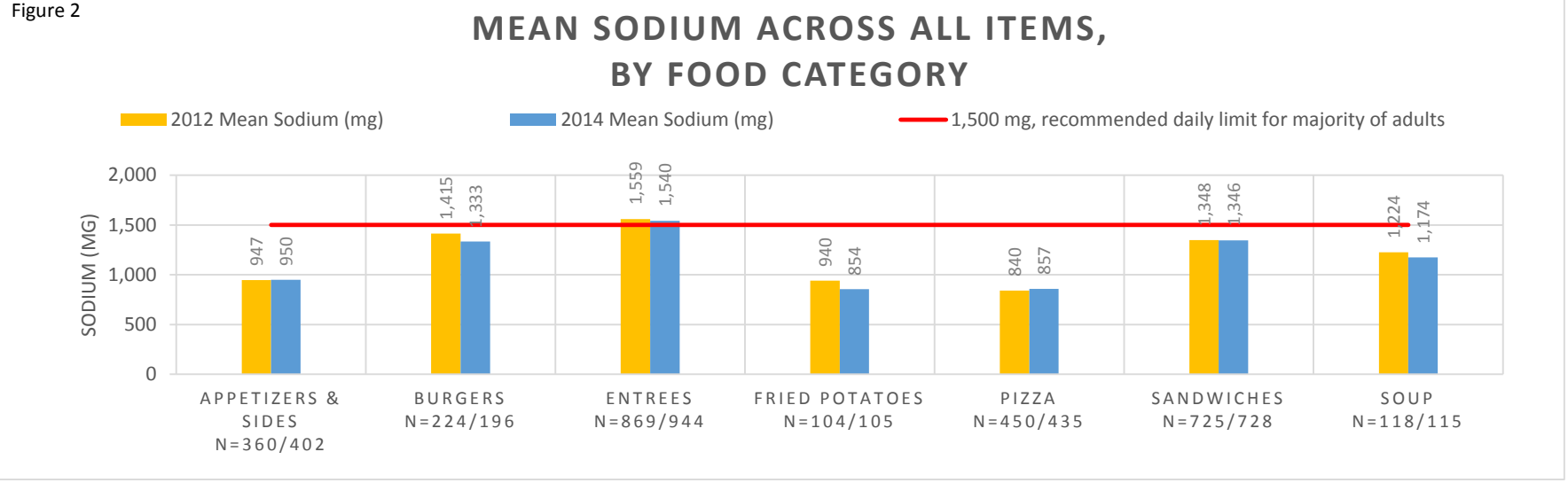


in the Kids category.[30] Focusing on those items that remained constant on menus in both 2012 and 2014 only underscores that finding (see Figure 1, Table 1b, Appendix). There was no decrease among those 1,874 menu items, with an average sodium level of 1,201 mg in 2012 and 2014. Very similar results were seen for the Standard subset of menu items.

Analysis by Food Category

A review of the data by the seven menu categories again displays little progress in sodium reduction (see Figure 2 and Table 2a, Appendix). Burgers, Fried Potatoes, and Soups saw reductions in average sodium content of 6 percent, 9 percent, and 4 percent respectively. Sodium in pizza increased by 2 percent, and

Figure 2



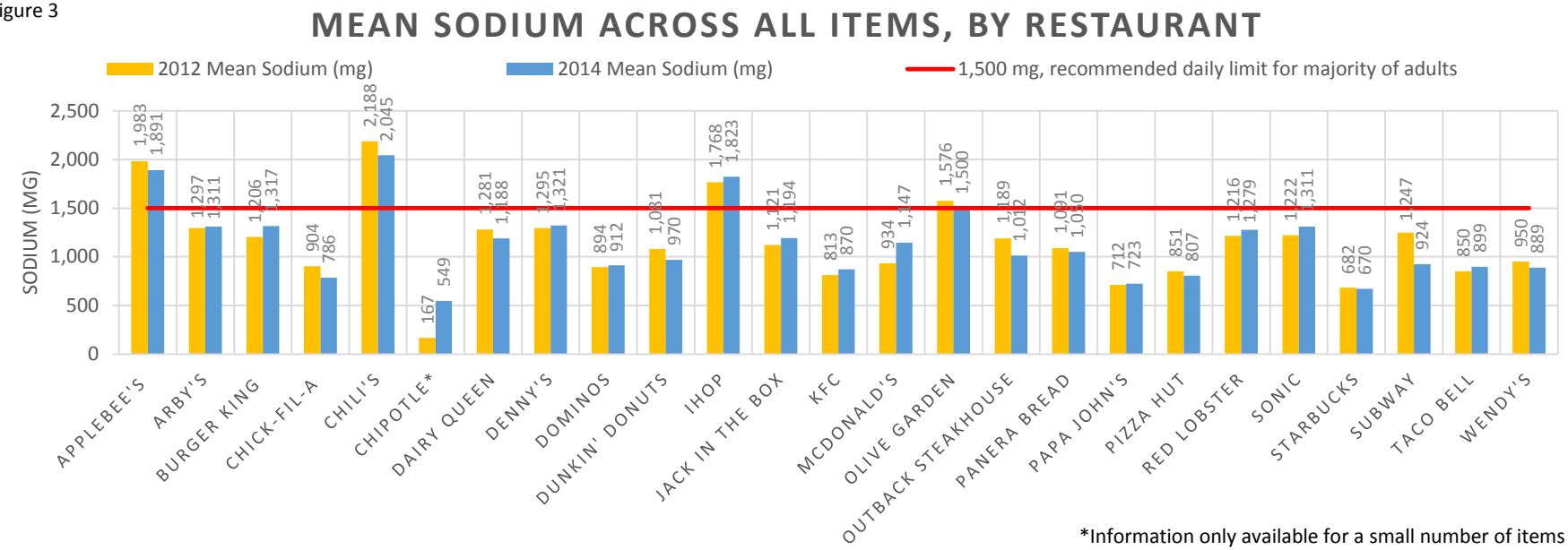
[30] For more on calorie change, see Bleich, S. N., Wolfson, J. A., & Jarlenski, M.P. (2014). Calorie changes in chain restaurant menu items. *American Journal of Preventive Medicine.* http://www.ajpmonline.org/article/S0749-3797(14)00493-0/pdf.

Appetizers & Sides and Sandwiches had no change. The decrease for Entrees was minimal, at 1 percent. When only those items that were on menus in both 2012 and 2014 were analyzed, the progress in several categories disappeared (see Table 2b, Appendix). Burgers registered a decrease of 3 percent, Fried Potatoes increased 2 percent, and Appetizers & Sides increased by 3 percent. That suggests that the category decreases noted above were due to the elimination of higher sodium foods or the addition of lower-sodium foods, as opposed to reformulation of existing popular products.

Analysis by Restaurant

Because the number of items for some restaurants varies widely year to year and can often be small, any analysis by restaurant is likely to be misleading and should not be taken at face value. For instance, Chipotle registered a 229 percent increase in average sodium level from 2012 to 2014, because MenuStat listed only three menu items in 2012 and eight in 2014 (Figure 3, Table 3c, Appendix). What's clear, however, is a lack of sustained, across-the-board reduction in sodium in the restaurant industry (see Figure 3 and Table 3c, Appendix). For instance, the average menu items at table-service chains Applebee's, Chili's, IHOP, and Olive Garden all contain as much or more sodium than the majority of Americans should consume in an entire day (see Figure 3). Analyzing the constant menu items in 2012 and 2014 shows an increase in sodium content in seven of the restaurant chains (see Table 4c, Appendix). IHOP performed worst, increasing sodium on its menu by 9 percent.

Figure 3



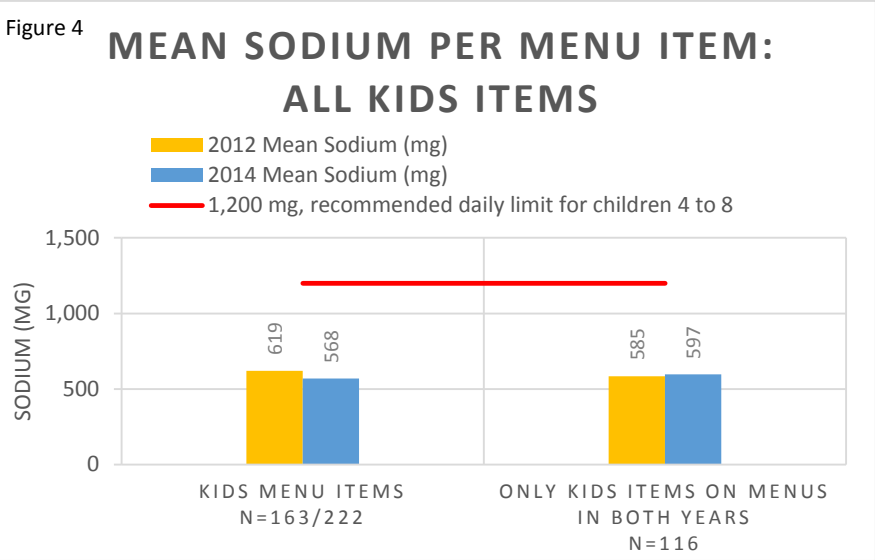
*Information only available for a small number of items

On the other hand, 15 chains decreased sodium content. Outback Steakhouse made the most positive progress with a 9 percent reduction in sodium. Results were very similar for Standard menu items (see Tables 3b and 4b, Appendix).

Kids Menu Items

As the recent CDC Vital Signs report demonstrates, there is particular concern for high sodium levels in foods served to children, not only because of the associated health risks, such as high blood pressure, but also because they can establish a preference for salty foods.[31] For children ages 4 to 8, the Institute of Medicine recommends a daily sodium intake of 1,200 mg a day.

Figure 4



[31] Yang, Q., Zhang, Z., Kuklina, E. V., Fang, J., Ayala, C., et al. (2012). Sodium intake and blood pressure among US children and adolescents. *Pediatrics*, 130(4), 611-619.

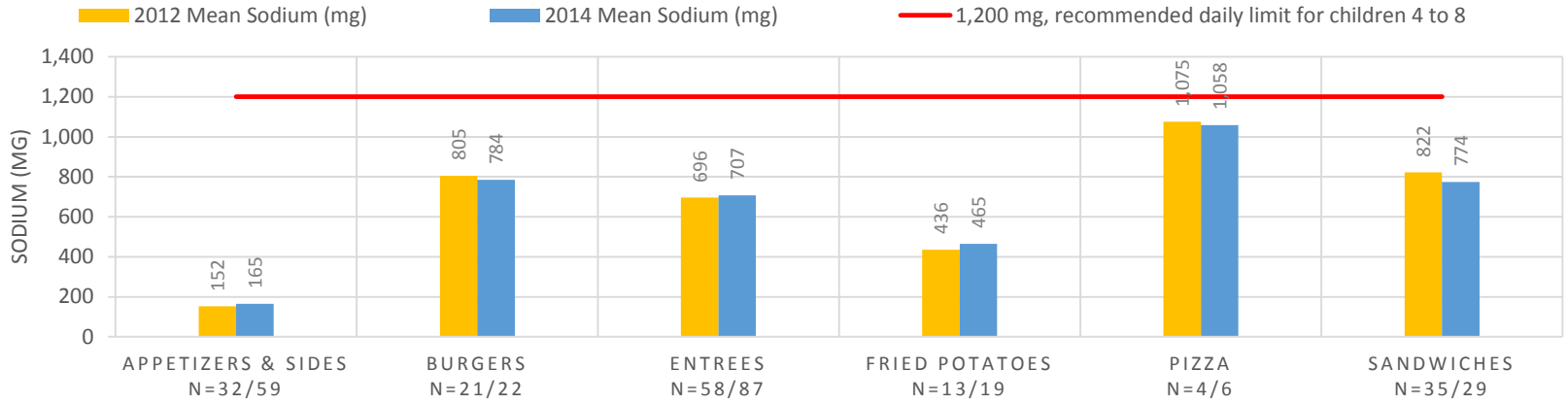
Across all kids menu items, the average sodium content of the 163 kids items in 2012 to the 222 in 2014 declined by 8 percent, from 619 mg to 568 mg (See Figure 4 and Table 1a, Appendix). However, when the 116 items that remained constant between 2012 and 2014 were analyzed, the average sodium levels actually increased by 2 percent, from 585 mg to 597 mg (see Figure 4 and Table 1b, Appendix). Those results indicate that restaurants are not decreasing sodium levels in their arguably more popular kids items; instead, they are adding lower-sodium items, such as apple slices, to the menu.

Analysis of Kids Items by Food Category

An analysis by food category (see Figure 5 and Table 2a, Appendix), showed that Kids Appetizers & Sides and Fried Potatoes had the largest increases in sodium, at 8 percent and 7 percent respectively. Entrees increased by 2 percent. Sandwiches had the largest decline in sodium, at 6 percent, while sodium in Burgers declined by 3 percent and sodium in Pizza by 2 percent. There were no kids menu items categorized as Soup.

Analyzing the categories by the foods that were on the menu in both 2012 and 2014 did not change the picture of one step forward and one step back (see Table 2b, Appendix). Kids Appetizers & Sides and Pizza showed decreases of 5 percent and 4 percent respectively, while Burgers, Entrees, Fried Potatoes and Sandwiches all showed increases, ranging from 1 percent for both Fried Potatoes and Sandwiches to 5 percent for Burgers.

Figure 5



Analysis of Kids Items by Restaurant

Again, a restaurant-by-restaurant analysis has limitations given the substantial year-to-year variations in numbers of items for different restaurants. For instance, Denny's, KFC, and McDonald's all showed large and misleading percent changes in sodium content due to differences in the number of menu items each year (see Table 3a, Appendix). However, focusing on absolute sodium content shows a significant range in the industry. In 2014, the restaurant with the highest sodium for kids items on average was Applebee's at 838 mg, followed by IHOP at 800 mg. In 2012, the restaurant with the highest sodium for kids items was Dairy Queen, with an average of 967 mg per item. The restaurant with the least sodium on average per item in 2014 was Chipotle at 160 mg, largely because in the MenuStat categorization system, the only items included from Chipotle were small side dishes with lower sodium than larger dishes. Subway kids items were the second least salty, with an average of 267 mg of sodium per item. Despite those restaurants having lower levels of sodium, there were six restaurants—Applebee's, Dairy Queen, IHOP, Jack in the Box, McDonald's, and Olive Garden—with menu items with average sodium levels greater than or equal to 600 mg, half the daily limit recommended for children.

Comparing kids items that were on the menu in both 2012 and 2014 (116 items) shows a mixed bag of progress (see Table 4a, Appendix). Although restaurants generally reduced average calories in these presumably staple, more popular items, some restaurants markedly increased average sodium content. Most notably, Applebee's increased sodium on average in kids items by 21 percent, and Chili's by 12 percent. Other restaurants succeeded in lowering average sodium levels in their items, including Arby's (-16 percent), Red

Lobster (-11 percent), and Subway (-9 percent). As we saw previously in Figure 4, there was a slight increase in overall average sodium content across kids items that were on the menu in both 2012 and 2014.

LIMITATIONS

This study has several limitations, largely due to limitations of online restaurant nutrition data, the source material used to build MenuStat. Providing nutrition data for restaurants is voluntary and there is no standard way of reporting, so restaurants do not always provide serving size data, and when they do, it can be done oddly, such as listing one chicken wing rather than as served. Because of this and the differences in types of restaurants evaluated, MenuStat sometimes had to place menu items into unintuitive food categories in order to standardize the dataset. For instance, fruit parfaits were always categorized as "Entrees," and most menu items at Chipotle were categorized as "Toppings & Ingredients," a category not analyzed in this report. Another limitation stemming from restaurant data is that restaurants do not label foods meant for kids consistently. In 2012, a number of restaurants did not specify online which of their items were on the kids menu, so even though the kids menus existed in restaurants, the MenuStat database could not record those items as kids items; consequently, our dataset does not include those in our Kids category. An example is McDonald's, which listed only one kids menu item online in 2012 but six in 2014. Another limitation is that a large disparity between N values in 2012 and 2014 could skew the percent change, especially when low numbers of items were compared. Finally, the MenuStat data is not weighted by sales volume. Therefore, our results do not show how a small reduction or increase in sodium in a top-selling product could be more important than large or small changes in poorly selling products.

CONCLUSION

Despite the voluntary commitments by the food industry to reduce sodium on their own, this analysis shows a stunning lack of overall progress in a significant sector of the industry. By no measure was there sustained, across-the-board progress in reducing sodium in the menu items offered in these top 25 restaurants. Reductions made were relatively small, and even the 8 percent reduction for kids menu items was mainly the result of the introduction of low-sodium items rather than reformulation.

Despite the 2010 IOM road map for gradual sodium reduction in restaurants and packaged foods, the FDA has been hesitant to act. Faced with industry opposition and recent—but severely flawed—studies suggesting that sodium levels too low may lead to increased health risks, the FDA stands apart in the world's public health community. Acting on the body of scientific research, public health agencies are taking action in the United Kingdom, Finland, Argentina, South Africa, and many other nations, setting mandatory limits or voluntary targets. With the average American consuming almost twice the recommended daily limit of sodium, the federal government continues to miss a public health opportunity that could save tens of thousands of lives and reduce medical costs by tens of billions of dollars per year.

APPENDIX

Table 1a. All Menu Items

Item Type	2012 N	2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
All Kids' Menu Items*	163	222	619	568	-8	287	269	-6
Standard Menu Items	2,717	2,766	1,297	1,293	0	546	554	1
All Menu Items**	**2,850**	**2,925**	**1,267**	**1,256**	**-1**	**535**	**539**	**1**

*Includes kids menu items that also appear on the adult menu as "Standard" menu items

**All menu items counted only once

Table 1b. All Items on Menus in Both Years

Item Type	2012/2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
All Kids' Menu Items*	116	585	597	2	279	278	0
Standard Menu Items	1,784	1,231	1,230	0	517	515	0
All Menu Items**	**1,874**	**1,201**	**1,201**	**0**	**506**	**504**	**0**

*Includes kids menu items that also appear on the adult menu as "Standard" menu items

**All menu items counted only once

Table 2a. All Menu Items, Analysis by Food Category

Item Type	Food Category	2012 N	2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
All Kids Menu Items*	**Appetizers & Sides**	32	59	152	165	**8**	94	108	**15**
	Burgers	21	22	805	784	**-3**	435	392	**-10**
	Entrees	58	87	696	707	**2**	300	311	**4**
	Fried Potatoes	13	19	436	465	**7**	243	290	**20**
	Pizza	4	6	1,075	1,058	**-2**	505	537	**6**
	Sandwiches	35	29	822	774	**-6**	343	311	**-9**
Standard	**Appetizers & Sides**	336	368	1,002	1,021	**2**	414	418	**1**
	Burgers	208	182	1,458	1,372	**-6**	850	779	**-8**
	Entrees	815	866	1,616	1,614	**0**	690	717	**4**
	Fried Potatoes	98	98	971	888	**-9**	485	456	**-6**
	Pizza	446	429	838	854	**2**	342	364	**6**
	Sandwiches	696	708	1,370	1,362	**-1**	534	539	**1**
	Soup	118	115	1,224	1,174	**-4**	290	287	**-1**
All**	**Appetizers & Sides**	360	402	947	950	**0**	393	392	**0**
	Burgers	224	196	1,415	1,333	**-6**	823	755	**-8**
	Entrees	869	944	1,559	1,540	**-1**	666	684	**3**
	Fried Potatoes	104	105	940	854	**-9**	468	437	**-7**
	Pizza	450	435	840	857	**2**	343	366	**7**
	Sandwiches	725	728	1,348	1,346	**0**	527	533	**1**
	Soup	118	115	1,224	1,174	**-4**	290	287	**-1**

*Includes kids menu items that also appear on the adult menu as "Standard" menu items

**All menu items counted only once

Table 2b. All Items on Menus in Both Years, Analysis by Food Category

Item Type	Food Category	2012/2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
All Kids Menu Items*	**Appetizers & Sides**	22	115	109	**-5**	83	88	**6**
	Burgers	16	749	787	**5**	410	389	**-5**
	Entrees	40	706	724	**3**	311	310	**0**
	Fried Potatoes	12	410	416	**1**	235	256	**9**
	Pizza	3	1,007	970	**-4**	490	500	**2**
	Sandwiches	23	745	756	**1**	316	310	**-2**
Standard	**Appetizers & Sides**	262	1,026	1,062	**3**	434	425	**-2**
	Burgers	128	1,358	1,314	**-3**	759	737	**-3**
	Entrees	452	1,567	1,563	**0**	675	682	**1**
	Fried Potatoes	84	912	929	**2**	457	474	**4**
	Pizza	310	833	824	**-1**	346	343	**-1**
	Sandwiches	453	1,316	1,306	**-1**	515	508	**-1**
	Soup	95	1,201	1,187	**-1**	280	293	**5**
All**	**Appetizers & Sides**	279	971	1,004	**3**	412	404	**-2**
	Burgers	139	1,312	1,278	**-3**	735	714	**-3**
	Entrees	488	1,504	1,500	**0**	649	655	**1**
	Fried Potatoes	90	881	895	**2**	440	456	**4**
	Pizza	313	834	826	**-1**	347	344	**-1**
	Sandwiches	470	1,295	1,295	**0**	509	502	**-2**
	Soup	95	1,201	1,187	**-1**	280	293	**5**

*Includes kids menu items that also appear on the adult menu as "Standard" menu items

**All menu items counted only once

Table 3a. Kids Menu Items, Analysis by Restaurant*

Restaurant	2012 N	2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
Applebee's	19	30	698	838	**20**	361	359	**-1**
Arby's	9	6	428	480	**12**	169	196	**16**
Burger King	4	11	443	425	**-4**	230	212	**-8**
Chick-Fil-A	N/A	9	N/A	429	**N/A**	N/A	144	**N/A**
Chili's	21	22	491	577	**17**	254	283	**12**
Chipotle	3	3	167	160	**-4**	90	87	**-4**
Dairy Queen	15	8	967	714	**-26**	433	295	**-32**
Denny's	6	24	752	376	**-50**	418	217	**-48**
IHOP	15	14	711	800	**12**	350	409	**17**
Jack in the Box	12	12	572	600	**5**	248	243	**-2**
KFC	1	9	690	450	**-35**	260	154	**-41**
McDonald's	1	6	70	693	**890**	100	478	**378**
Olive Garden	10	10	695	694	**0**	294	294	**0**
Outback Steakhouse	7	11	671	515	**-23**	373	338	**-9**
Panera Bread	8	9	734	576	**-22**	286	269	**-6**
Red Lobster	14	9	576	498	**-14**	175	146	**-17**
Sonic	9	13	461	583	**26**	217	306	**41**
Subway	4	10	388	267	**-31**	178	171	**-4**
Wendy's	5	6	520	432	**-17**	256	207	**-19**

*Includes kids menu items that also appear on the adult menu as "Standard" menu items

Table 3b. Standard Menu Items, Analysis by Restaurant

Restaurant	2012 N	2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
Applebee's	151	137	2,137	2,113	**-1**	797	766	**-4**
Arby's	79	72	1,318	1,340	**2**	468	471	**1**
Burger King	166	194	1,217	1,338	**10**	725	717	**-1**
Chick-Fil-A	42	44	904	826	**-9**	363	373	**3**
Chili's	111	119	2,491	2,288	**-8**	956	892	**-7**
Chipotle	N/A	5	N/A	782	**N/A**	N/A	631	**N/A**
Dairy Queen	70	66	1,348	1,230	**-9**	563	535	**-5**
Denny's	133	152	1,310	1,408	**7**	554	584	**5**
Dominos	224	261	894	912	**2**	373	385	**3**
Dunkin' Donuts	60	53	1,081	970	**-10**	427	415	**-3**
IHOP	267	275	1,827	1,875	**3**	856	895	**5**
Jack in the Box	80	88	1,170	1,223	**5**	532	537	**1**
KFC	65	75	814	904	**11**	301	326	**8**
McDonald's	73	123	946	1,169	**24**	456	566	**24**
Olive Garden	99	104	1,665	1,578	**-5**	724	683	**-6**
Outback Steakhouse	107	134	1,223	1,052	**-14**	565	541	**-4**
Panera Bread	98	97	1,122	1,085	**-3**	444	416	**-6**
Papa John's	91	91	712	723	**2**	273	274	**0**
Pizza Hut	183	120	851	807	**-5**	315	310	**-2**
Red Lobster	200	181	1,248	1,309	**5**	439	470	**7**
Sonic	99	123	1,231	1,321	**7**	557	553	**-1**
Starbucks	25	24	682	670	**-2**	340	353	**4**
Subway	176	98	1,267	948	**-25**	455	352	**-23**
Taco Bell	77	88	850	899	**6**	395	390	**-1**
Wendy's	41	42	986	902	**-9**	455	425	**-7**

Table 3c. All Menu Items, Analysis by Restaurant*

Restaurant	2012 N	2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
Applebee's	169	166	1,983	1,891	**-5**	750	694	**-7**
Arby's	82	75	1,297	1,311	**1**	460	462	**0**
Burger King	168	199	1,206	1,317	**9**	719	705	**-2**
Chick-Fil-A	42	51	904	786	**-13**	363	340	**-6**
Chili's	131	139	2,188	2,045	**-7**	849	805	**-5**
Chipotle	3	8	167	549	**229**	90	427	**374**
Dairy Queen	85	70	1,281	1,188	**-7**	540	515	**-5**
Denny's	138	168	1,295	1,321	**2**	549	553	**1**
Dominos	224	261	894	912	**2**	373	385	**3**
Dunkin' Donuts	60	53	1,081	970	**-10**	427	415	**-3**
IHOP	282	289	1,768	1,823	**3**	829	871	**5**
Jack in the Box	86	92	1,121	1,194	**6**	509	523	**3**
KFC	66	80	813	870	**7**	301	315	**5**
McDonald's	74	129	934	1,147	**23**	452	562	**24**
Olive Garden	109	114	1,576	1,500	**-5**	684	649	**-5**
Outback Steakhouse	114	145	1,189	1,012	**-15**	553	525	**-5**
Panera Bread	105	104	1,091	1,050	**-4**	432	406	**-6**
Papa John's	91	91	712	723	**2**	273	274	**0**
Pizza Hut	183	120	851	807	**-5**	315	310	**-2**
Red Lobster	210	188	1,216	1,279	**5**	428	459	**7**
Sonic	101	125	1,222	1,311	**7**	552	549	**-1**
Starbucks	25	24	682	670	**-2**	340	353	**4**
Subway	180	102	1,247	924	**-26**	448	345	**-23**
Taco Bell	77	88	850	899	**6**	395	390	**-1**
Wendy's	45	44	950	889	**-6**	438	418	**-5**

*All menu items counted only once

Table 4a. All Kids Items on Menu in Both Years, Analysis by Restaurant*

Restaurant	2012/2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	%Change	2012 Mean Calories	2014 Mean Calories	% Change
Applebee's	11	680	820	**21**	378	358	**-5**
Arby's	5	688	576	**-16**	238	228	**-4**
Burger King	3	487	450	**-8**	243	223	**-8**
Chili's	20	487	543	**12**	257	267	**4**
Chipotle	3	167	160	**-4**	90	87	**-4**
Dairy Queen	1	400	400	**0**	190	190	**0**
Denny's	5	754	759	**1**	448	464	**4**
IHOP	8	808	831	**3**	431	430	**0**
Jack in the Box	11	600	600	**0**	243	243	**0**
McDonald's	1	70	70	**0**	100	100	**0**
Olive Garden	10	695	694	**0**	294	294	**0**
Outback Steakhouse	7	671	635	**-5**	373	360	**-4**
Panera Bread	7	721	717	**-1**	281	284	**1**
Red Lobster	8	561	499	**-11**	177	156	**-12**
Sonic	8	410	431	**5**	204	229	**12**
Subway	4	388	353	**-9**	178	178	**0**
Wendy's	4	478	463	**-3**	238	235	**-1**

*Includes kids menu items that also appear on the adult menu as "Standard" menu items

Table 4b. All Standard Items on Menu in Both Years, Analysis by Restaurant

Restaurant	2012/2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
Applebee's	103	2,110	2,165	**3**	807	787	**-2**
Arby's	63	1,343	1,334	**-1**	478	460	**-4**
Burger King	83	1,138	1,109	**-3**	675	668	**-1**
Chick-Fil-A	37	840	803	**-4**	357	373	**4**
Chili's	74	2,364	2,325	**-2**	949	886	**-7**
Dairy Queen	62	1,236	1,233	**0**	543	538	**-1**
Denny's	90	1,314	1,355	**3**	555	553	**0**
Dominos	190	896	895	**0**	374	377	**1**
Dunkin' Donuts	37	983	928	**-6**	419	397	**-5**
IHOP	121	1,679	1,829	**9**	772	793	**3**
Jack in the Box	64	1,190	1,181	**-1**	520	510	**-2**
KFC	57	831	818	**-2**	301	302	**0**
McDonald's	58	912	922	**1**	434	441	**1**
Olive Garden	66	1,628	1,617	**-1**	731	726	**-1**
Outback Steakhouse	73	1,161	1,058	**-9**	556	564	**2**
Panera Bread	70	1,091	1,085	**0**	396	401	**1**
Papa John's	79	713	713	**0**	272	272	**0**
Pizza Hut	86	888	827	**-7**	320	315	**-1**
Red Lobster	102	1,355	1,316	**-3**	454	476	**5**
Sonic	96	1,235	1,273	**3**	557	568	**2**
Starbucks	15	571	593	**4**	327	325	**0**
Subway	75	984	927	**-6**	357	347	**-3**
Taco Bell	49	811	823	**1**	370	363	**-2**
Wendy's	34	947	911	**-4**	444	442	**-1**

Table 4c. All Items on Menu in Both Years, Analysis by Restaurant*

Restaurant	2012/2014 N	2012 Mean Sodium (mg)	2014 Mean Sodium (mg)	% Change	2012 Mean Calories	2014 Mean Calories	% Change
Applebee's	113	1,983	2,047	**3**	768	748	**-3**
Arby's	66	1,316	1,301	**-1**	467	449	**-4**
Burger King	84	1,128	1,099	**-3**	669	662	**-1**
Chick-Fil-A	37	840	803	**-4**	357	373	**4**
Chili's	91	1,984	1,966	**-1**	807	760	**-6**
Chipotle	3	167	160	**-4**	90	87	**-4**
Dairy Queen	63	1,223	1,220	**0**	537	533	**-1**
Denny's	94	1,297	1,336	**3**	550	549	**0**
Dominos	190	896	895	**0**	374	377	**1**
Dunkin' Donuts	37	983	928	**-6**	419	397	**-5**
IHOP	129	1,625	1,767	**9**	751	771	**3**
Jack in the Box	68	1,152	1,143	**-1**	502	492	**-2**
KFC	57	831	818	**-2**	301	302	**0**
McDonald's	59	898	908	**1**	429	435	**1**
Olive Garden	76	1,505	1,495	**-1**	673	669	**-1**
Outback Steakhouse	80	1,118	1,021	**-9**	540	546	**1**
Panera Bread	76	1,055	1,049	**-1**	385	389	**1**
Papa John's	79	713	713	**0**	272	272	**0**
Pizza Hut	86	888	827	**-7**	320	315	**-1**
Red Lobster	108	1,313	1,271	**-3**	440	460	**5**
Sonic	97	1,227	1,264	**3**	553	565	**2**
Starbucks	15	571	593	**4**	327	325	**0**
Subway	79	954	898	**-6**	348	338	**-3**
Taco Bell	49	811	823	**1**	370	363	**-2**
Wendy's	36	930	896	**-4**	434	432	**-1**

*All menu items counted only once